

CLAIMS

1. A machine-based method comprising
  - receiving historical multi-dimensional data representing multiple source variables to be used as an input to a predictive model of a commercial system,
  - applying transformations to the source variables that are selected to increase predictive power, and
  - applying transformations to the data that are selected based on the strength of measurement represented by a variable.
2. The method of claim 1 in which the strength of measurement comprises at least one of nominal, ordinal, and interval.
3. The method of claim 1 in which the strength of a measurement is represented in stored metadata associated with the data.
4. The method of claim 1 also including
  - displaying to a user a representation of a response function of a target variable against untransformed, transformed, and target variables associated with the data.
5. The method of claim 1 also including

persistently storing both the source variables and related transformed versions of the source variables.
6. A machine-based method comprising
  - receiving historical multi-dimensional data representing multiple source variables to be used as an input to a predictive model of a commercial system,
  - adjusting unstable values of the variables to reduce inaccurate associations between predictor variables and target variables.
7. The method of claim 6 in which the adjustment of the unstable values comprises Bayesian renormalization.
8. A machine-based method comprising
  - in connection with a project in which a user generates a predictive model based on historical data about a system being modeled, automatically imputing missing values for continuous variables associated with the data.

9. The method of claim 8 in which the user is enabled to invoke the automatic imputing as part of a user interface feature that displays information about variables for which values are missing.
10. The method of claim 9 in which the automatic imputing is invoked based on the variable or type of variable.
11. The method of claim 9 in which the variables for which missing values are imputed may be used in the model or may be transformed for use in the model.